

CLAIMS

1. An image processing circuit comprising:
a signal processing means for extracting prime
color signals from an input image signal; and
5 a color change detecting means for detecting
color changes included in the image signal based on
integrated data of each prime color signal extracted by
the signal processing means.
2. An image processing circuit as set forth in
10 claim 1, wherein the color change detecting means detects
periodic color changes.
3. An image processing circuit as set forth in
claim 2, wherein the color change detecting means detects
periodic color changes by a change of B signal with
15 respect to R signal and G signal of the color signals.
4. An image processing circuit as set forth in
claim 2, wherein the color change detecting means detects
periodic color changes when a level of B signal among the
color signals becomes smaller than a predetermined value
20 and starts to become larger again.
5. An image processing circuit as set forth in
claim 2, wherein the color change detecting means detects
periodic color changes by monitoring changes of the
integrated data of each color signal for each field of

the image signal.

6. An image processing circuit as set forth in claim 2, wherein the circuit makes an auto white balancing control at the signal processing means
5 automatically shift to a color change suppressing mode when periodic color changes are detected by the color change detecting means.

7. An image processing circuit as set forth in claim 6, wherein the circuit makes an auto white
10 balancing control speed up at the color change suppressing mode.

8. An image processing circuit as set forth in claim 6, wherein the circuit makes an auto white balancing control speed up and suppresses signal gains of
15 color components in the direction where periodic color changes occur.

9. An image processing method for processing an image signal comprising:

a first step of extracting prime color signals
20 from the image signal;

a second step of calculating integrated data of each color signal based on the extracted prime color signals; and

a third step of extracting color changes included

in the image signal based on changes in the integrated data of each color signal.

10. An image processing method as set forth in claim 9, wherein, in the third step, periodic color
5 changes are detected.

11. An image processing method as set forth in claim 10, wherein, in the third step, periodic color changes are detected by a change of B signal with respect to R signal and G signal of the color signals.

10 12. An image processing method as set forth in claim 10, wherein, in the third step, periodic color changes are detected when a level of B signal among the color signals becomes smaller than a predetermined value and starts to become larger again.

15 13. An image processing method as set forth in claim 10, wherein, in the third step, periodic color changes are detected by monitoring changes of the integrated data of each color signal for each field of the image signal.

20 14. An image processing method as set forth in claim 10, wherein, in the third step, an auto white balancing control of the image signal is automatically shifted to a color change suppressing mode when periodic color changes are detected.

15. An image processing method as set forth in claim 14, wherein an auto white balancing control is speeded up at the color change suppressing mode.

16. An image processing method as set forth in
5 claim 14, wherein an auto white balancing control is speeded up and suppressed color gains of color components in the direction where periodic color changes occur.

17. A camera device comprising:

an image pickup means for picking up an image
10 of an object and outputting an image signal;

a signal processing means for extracting prime color images from the image signal output from the image pickup means;

a color signal detecting means for calculating
15 integrated data for each color signal based on the prime color signals extracted by the signal processing means;
and

a color change detecting means for detecting color changes included in the image signal based on
20 changes of integrated data of each color signal calculated by the color signal detecting means.

18. A camera device as set forth in claim 17, wherein the color change detecting means detects periodic color changes.

19. A camera device as set forth in claim 18,
wherein the color change detecting means detects periodic
color changes by a change of B signal with respect to R
signal and G signal of the color signals.

5 20. A camera device as set forth in claim 18,
wherein the color change detecting means detects periodic
color changes when a level of B signal among the color
signals becomes smaller than a predetermined value and
starts to become larger again.

10 21. A camera device as set forth in claim 18,
wherein the color change detecting means detects periodic
color changes by monitoring changes of the integrated
data of each color signal for each field of the image
signal.

15 22. A camera device as set forth in claim 18,
wherein the circuit makes an auto white balancing control
at the signal processing means automatically shift to a
color change suppressing mode when periodic color changes
are detected by the color change detecting means.

20 23. A camera device as set forth in claim 22,
wherein the circuit makes an auto white balancing control
speed up at the color change suppressing mode.

24. A camera device as set forth in claim 22,
wherein the circuit makes an auto white balancing control

speed up and suppresses color gains of color components
in the direction where periodic color changes occur.